

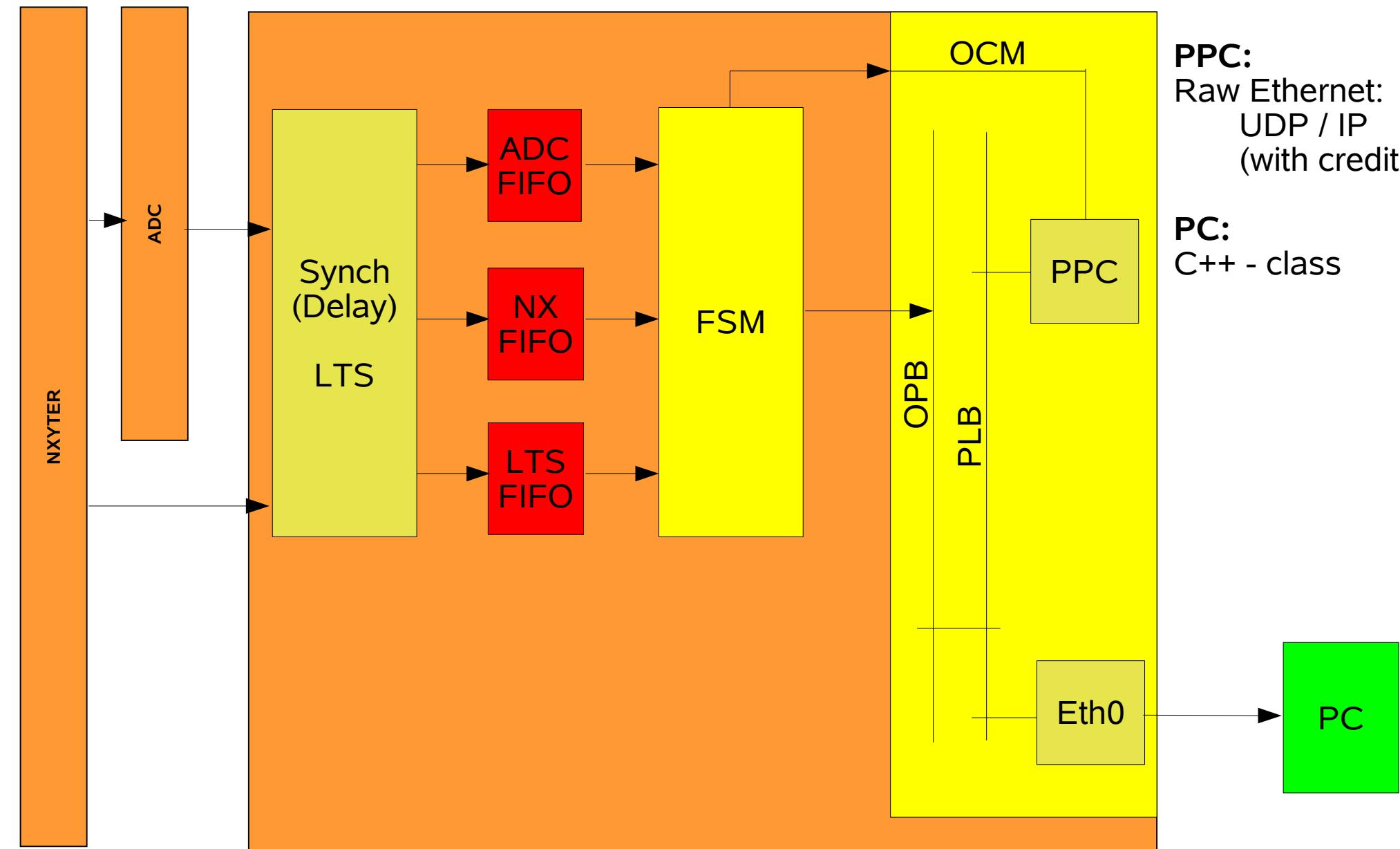
# KIP Heidelberg

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*Status of the ROC interface class*

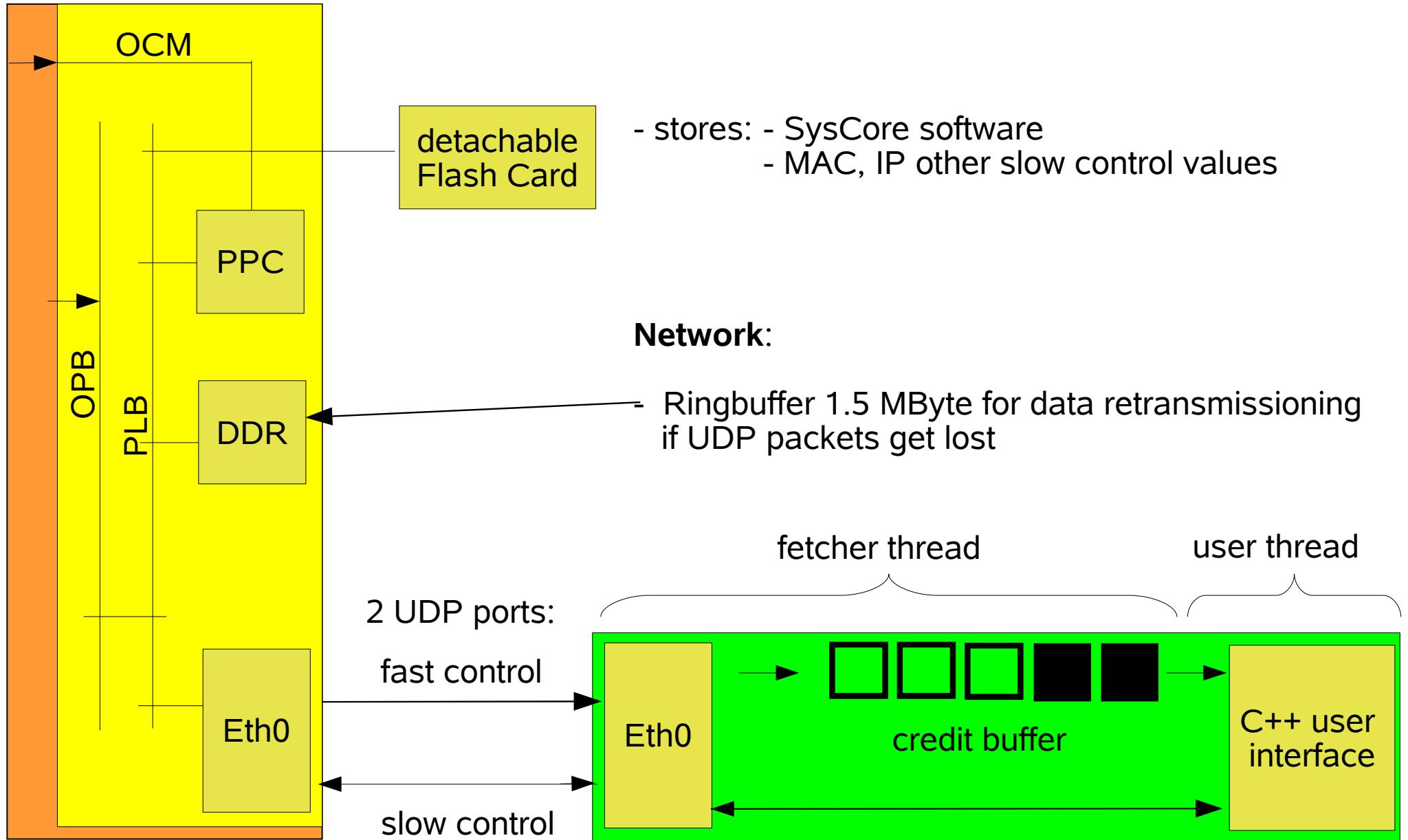
# SysCore Overview

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# *Some implementation details*

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# SysCoreControl class header

```
class SysCoreControl
{
private:
    ...

public:
    vector<SysCoreBoard> board;

    SysCoreControl();
    ~SysCoreControl();

    /*****
     * Slowcontrol
     *****/
    void addBoard(ipaddr_t address);
    void addBoard(string address);
    int getNumberOfBoards();

    void peek(unsigned short boardId, unsigned long address, unsigned long &readValue);
    void poke(unsigned short boardId, unsigned long address, unsigned long writeValue);

    //Debug "telnet" connection
    void sendConsoleCommand(unsigned short boardId, string cmd);

    /*****
     * Fastcontrol
     *****/
    bool isDataInBuffer();
    void getNextData(SysCoreData &sysCoreData);

};
```

## C++ user interface demo

```
...  
  
#include "SysCoreControl.h"  
  
int main(void)  
{  
    SysCoreControl control;  
  
    control.addBoard("129.206.177.44");  
    control.addBoard("129.206.177.45");  
    ...  
  
    cout << control.getNumberOfBoards();  
    cout << " SysCore boards are configured." << endl;  
  
    //Slowcontrol  
  
    control.board[0].setIpAddress("129.206.177.100");  
  
    //or  
    ipaddr_t ip;  
    Utility::u2ip("129.206.177.101", ip);  
    control.poke(1, SC_SET_IPADDRESS, ip);  
  
    control.board[0].startDAQ();  
    cout << "starting readout..." << endl;  
  
    ...
```

## C++ user interface demo

```
...
SysCoreData data;

//read 100 hitdatas

for(int i = 0; i < 100;)
{
    if(control.board[0].isDataInBuffer()) //credit buffer has data
    {
        control.board[0].getNextData(data);

        //handle data

        switch (data.getMessageType())
        {
        case ROC_MSGTYPE_NOP:
            break;
        case ROC_MSGTYPE_HITDATA:
            i++;
            break;
        ...
    }
}
```

- Class SysCoreData has a private char[6] array
- .getter() use bitmasks and bitshifting

## *TODO:*

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- finish implementing all SysCoreData.getter() for every Messagetype naming defines for the address space, etc.  
(1/2 day)
- Merging the Network design and the Flash Card storage design  
(1 day)
- Merge with the bootloader design  
(1 day)